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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,849	12/18/2001	Gcrad Pucheu-Marque	28944/40018	6145

29471 7590 03/20/2006  
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CHICAGO, IL 60606

EXAMINER

HALIYUR, VENKATESH N

ART UNIT	PAPER NUMBER
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2664

DATE MAILED: 03/20/2006.

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/024,849	PUCHEU-MARQUE, GERAD	
	<b>Examiner</b>	<b>Art Unit</b>	
	Venkatesh Haliyur	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on 27 December 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27/12/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crisler et al [US Pat 5,038,342] in view of Raith [US Pat 5,903,552].

Regarding claim 1,8,10 Crisler et al in "TDM/FDM communication system supporting both TDM and FDM-only communication units" disclosed a method for RF communication system for assignment of channel and establishment of radio links between two incompatible wireless systems when an originating wireless TDM device begins transmitting to a non-TDM system [column 1, lines 43-68 and column 2, lines 1-2]. But Crisler et al fails to disclose a mechanism for the base station to monitor and detect mutual help channel with a given pattern transmitted by the mobile unit for the allocation of traffic channel. However, Raith in his invention "Discriminating between channels in wireless communication

systems" disclosed a mechanism to monitor and detect paging control channels for carrying call setup messages between base stations and mobile stations [column 2, lines 28-37, 55-67, column 3, lines 1-12].

Therefore it would have been obvious for one of ordinary skill in the art to use the teachings of Raith on paging control channel mechanism into the system of Crisler et al for monitoring and detecting a given pattern transmitted by the mobile terminal on said mutual help channel, allocating a traffic channel for communicating with the mobile terminal by the base station.

Regarding claim 2,9,11, Crisler et al disclosed a method for establishing traffic links between incompatible wireless systems using a timeslot mechanism [column 5, lines 8-24], but fails to disclose a method to monitor and detect paging control channel with certain periodic timeslots and power level measurement to compare against a pre-selected threshold value for allotting traffic channel. However, Raith in his invention disclosed a method for traffic channel allotment with periodic timeslots by scanning for strongest control channel [column 2, lines 38-54, column 3, lines 13-64].

Therefore it would have been obvious for one of ordinary skill in the art to use the teachings of Raith to assign logical channels in the system of Crisler et al

for assigning a control logical channel dedicated to searching for the given pattern on the mutual help channel with a different periodic timeslots.

Regarding claim 3, Crisler et al disclosed frames and slots [column 5, lines 8-50] but fails to disclose a method for periodic timeslot for a broadcasting logical channel set up on a downlink control physical channel specific to the base station. However, Raith discloses downlink superframe that includes logical channels and a broadcast control channel [column 4, lines 32-55].

Therefore it would have been obvious for one of ordinary skill in the art to use the teachings of Raith to include broadcast control channels in the system of Crisler et al to include periodic timeslots consisting of some of the timeslots of a broadcasting logical channel set up on a downlink control physical channel specific to the base station.

Regarding claim 4, Crisler et al disclosed communication between TDM and FDM units [column 5, lines 24-35], but fail to disclose a silent period in given periodic timeslots of the second system. However, Raith disclosed an idle timeslot during a discontinuous transmission mode [column 2, lines 17-27] in the TDMA cellular system.

Therefore it would have been obvious for one of ordinary skill in the art to use the teachings of Raith to include the method of idle timeslot in the system of Crisler et al for the mobile terminals of the second system are silent during said given periodic timeslots.

Regarding claim 5, Crisler et al disclosed synchronization method for voice and data signals [column 3, lines 52-55], but fails to disclose a synchronization pattern. However, Raith disclosed a synchronization bit pattern mechanism [Fig 2(b), column 4, lines 60-67].

Therefore it would have been obvious for one of ordinary skill in the art to use the teachings of Raith to include the method of synchronization bits in the system of Crisler et al into the frame of a traffic physical channel.

Regarding claim 6, Crisler et al fails to disclose automatic allotment of traffic channel, however Raith disclosed a method that automatically tunes to control channel [column 2, lines 47-54] for the subsequent allotment of traffic channel [column 3, lines 4-12].

Therefore it would have been obvious for one of ordinary skill in the art to use the teachings of Raith to include the method of automatic tuning of channels in the system of Crisler et al for the automatic allocation of the traffic channel.

Regarding claim 7, Crisler et al fails to disclose an operator support interface for their TDM/FDM communication system, however Raith disclosed a network support services to perform duties necessary to maintain and administer network [column 9, lines 38-55].

Therefore it would have been obvious for one of ordinary skill in the art to use the teachings of Raith to include the process of network services and support in the system of Crisler et al when it necessitates allocation of traffic channel to be controlled by an operator.

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

### ***Response to Arguments***

4. Applicant's arguments filed on 12/27/2005 have been fully considered but they are not persuasive and the examiner respectfully traverses the applicants' response to FOAM of 8/23/2005 as follows,

### ***Drawings***

Corrections to Figures 1-3 were received on 12/27/2005 in applicant's response to the objections to the drawings made in office action of 8/23/2005. Examiner respectfully accepts the amendments to the drawings (**Figures 1-3**).

### ***Claims***

In response to applicant's argument for claim rejections under 35 U.S.C 103(a) for claims 1-9, examiner respectfully directs the applicant to the disclosures made by Crisler et al. and Raith as follows.

Regarding claims 1,3-8,10, Crisler et al. disclosed allocating a traffic channel emulating (**assigns a channel**) the radio interface of a first radio communications system (**item 104 of Fig 1**) by a base station (**central controller, item 101 of Fig 1**) of a second radio communications system (**item 105 of Fig 1**), the radio interface of the first and second system being



incompatible with each. **[Crisler et al, Figs 1-5, col 1, lines 44-67, col 2, lines 1-54, col 5, lines 25-50]**. Crisler et al. disclosed communication system where only FDM communication units or TDM/FDM units can be accommodated in a single communication system and Crisler et al. further disclosed supporting a RF system which can accommodate different types of communication units, namely FDM/TDM units and FDM units and both of these communication units may be accommodated in a single system **[Crisler et al, col 1, lines 1-67, col 2, lines 1-2, abstract]**.

In response to the applicant's argument that Crisler et al does not disclose enabling a base station (**central controller, item 101 of Fig 1**) be able to communicate with a mobile station (**mobile units**) from an incompatible system (**FDM/TDM system and non-TDM system**), the examiner respectfully directs the applicant to the disclosure made by Crisler et al. for the method of base station (**central controller**) comparing the ID of the communication unit against a look-up table of unit types (**FDM/TDM or non-TDM units**) to make the appropriate system configuration **[Crisler et al, col 3, lines 64-67, col 4, lines 1-20]**.

In response to the applicant's argument that prior art reference Raith does not remove deficiencies in Crisler et al, examiner respectfully directs the applicant to the disclosures made by Raith for the steps of monitoring a mutual help channel (**control channel for paging messages**) of the first system and if the base station detects a pattern transmitted by the mobile terminal (**based on mobile station ID, MIN**) on the mutual help channel (**paging channel**), allocates

a traffic channel emulating the radio interface (**dual mode mobile station-base station compatibility standard for FDM and TDMA**) of the first system so that it may communicate with the mobile terminal (**mobile station**). Though Raith concerns distinguishing various channel types, e.g., traffic, control, packet data, by decoding and refining the control values in the received signal, Raith describes allocation of a traffic channel emulating the interface of a different wireless system [**Raith col 1, lines 1-67, col 2, lines 1-67, col 3, lines 1-35, col 9, lines 23-67, col 9, lines 1-67, col 10, lines 1-3**].

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Since Crisler et al. and Raith inventions are in the related art, examiner retains the rejection according to 35 U.S.C 103(a) for independent claims 1, 8 and 10 and dependent claims 3-7 based on prior art references Crisler et al. and Raith as in the office action.

In response to applicant's argument for claim rejections under 35 U.S.C 103(a) for claims 2, 9, and 11, examiner directs the applicant to disclosures made by Raith for the steps missing in Crisler for claims 2,9,11. Though Raith discusses automatic scanning to find the best control channels and during idle states, monitoring control channel messages addressed to it, Raith also suggests

monitoring a help channel (**paging channel**) for different radio interface (**dual mode mobile station-base station compatibility standard for FDM and TDMA**) [Raith, col. 2, lines 38-67, cols 3-4, col 5, lines 1-21].

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Since Crisler et al. and Raith inventions are in the related art, examiner retains the rejection according to 35 U.S.C 103(a) for claims 2, 9 and 11 based on prior art references Crisler et al. and Raith as in the office action.

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached @ (571)-272-3139. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

Art Unit: 2664

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Venkatesh Haliyur

Patent Examiner

*WH*  
03/13/06

*Ricky Q. Ngo*  
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SUPERVISORY PATENT EXAMINER